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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

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WHITE, M

ART UNIT

PAPER NUMBER

2712

DATE MAILED:

03/22/00

MILTON S SALES
EASTMAN KODAK COMPANY
PATENT LEGAL STAFF
ROCHESTER NY 14650-2201

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/833,106

Applicant(s)

Small

Examiner

Mitchell White

Group Art Unit

2712



☒ Responsive to communication(s) filed on Dec 28, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) 9 and 10 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-8 and 11-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 12

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.
2. **Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (US 5,040,068).**

Regarding claim 1, Parulski et al. discloses, in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with a program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the signal

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processing section includes a program memory however it would have been obvious to include a memory in order to perform the many operations of the processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image.

Regarding claim 2, Parulski et al. discloses, in figure 5, a digital image processor (168) which has a program memory (172) that performs the printer processing for the color correction, tone scale correction, and pixel correction for the printer (col. 8, lines 45-49).

Regarding claim 3, Parulski et al. discloses a digital image processor (168) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing such as cropping and color and tone alteration (col. 7, line 55 - col. 8, line 2) and a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68).

Claim 6 is considered substantively equivalent to claim 2.

Claim 7 is considered substantively equivalent to claim 3.

3. Claims 4, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (US 5,040,068) in view of Ichikawa (US 5,717,839).

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Regarding claim 4, Parulski et al. discloses in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a camera interface (140); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the processor include a program memory however it would have been obvious to include a memory in order to perform the many operations of each processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image. Parulski et al. discloses a printer interface of printer module (176) transmits processed images to a printer (col. 8, lines 45-49) but does not explicitly state that the camera/printer receives process color or printing process parameters from the printer. Parulski et al. also does not discloses a camera receiving color and printing process parameters, storing the parameters in memory, and applying the parameters to compensate for

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printer characteristics and transmit the compensated image to the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-551). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

Regarding claim 5, Parulski et al. discloses, in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with a program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the signal processing section includes a program memory however it would have been obvious to include a

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memory in order to perform the many operations of the processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image. Parulski et al. also does not disclose a camera receiving color and printing process parameters, storing the parameters in memory, and applying the parameters to compensate for printer characteristics and transmit the compensated image to the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-551). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

Regarding claim 8, Parulski et al. discloses in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a camera interface (140); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that

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the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the processor include a program memory however it would have been obvious to include a memory in order to perform the many operations of each processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image. The printer interface of printer module (176) transmits processed images to the printer (col. 8, lines 45-49) but does not receive process color or printing process parameters from the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used. Parulski et al. also does not discloses a camera receiving color and printing process parameters, storing the parameters in memory, and applying the parameters to compensate for printer characteristics and transmit the compensated image to the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the

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type of printer (col. 9, lines 47-551). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

4. Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. in view of Takeuchi et al. (US 4,694,749).

Regarding claim 11, Parulski et al. discloses, in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with a program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the signal processing section includes a program memory however it would have been obvious to include a memory in order to perform the many operations of the processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image

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pickup unit of figure 5 to initially process the image. Parulski et al. does not explicitly state that the compensation was performed during a printing process. However, Takeuchi et al. discloses a printing system which compensates for rotational phase and lateral error during the printing process (col. 2, lines 27-48). Therefore, it would have been obvious to modify the Parulski et al. camera/printer to include compensation during the printing process as taught by Takeuchi et al. to correct error caused by the printing conditions.

Regarding claim 12, Parulski et al. discloses, in figure 5, a digital image processor (168) which has a program memory (172) that performs the printer processing for the color correction, tone scale correction, and pixel correction for the printer (col. 8, lines 45-49).

Regarding claim 13, Parulski et al. discloses a digital image processor (168) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing such as cropping and color and tone alteration (col. 7, line 55 - col. 8, line 2) and a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68).

Regarding claim 14, Parulski et al. discloses in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a camera interface (140); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with program memory (172) for further

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processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the processor include a program memory however it would have been obvious to include a memory in order to perform the many operations of each processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image. The printer interface of printer module (176) transmits processed images to the printer (col. 8, lines 45-49) but does not receive process color or printing process parameters from the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used. Parulski et al. does not disclose receiving printing parameters which vary as a result of manufacturing and compensating for the manufacturing variations. However, Ichikawa discloses a camera/printer system that transmits

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processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-51) wherein each printer has its own set of correction quantities (col. 12, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

Regarding claim 15, Parulski et al. discloses, in figure 5, a digital image processor (168) which has a program memory (172) that performs the printer processing for the color correction, tone scale correction, and pixel correction for the printer (col. 8, lines 45-49).

Regarding claim 16, Parulski et al. does not disclose receiving printing parameters which vary as a result of manufacturing and compensating for the manufacturing variations. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-51) wherein each printer has its own set of correction quantities (col. 12, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

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Regarding claim 17, Parulski et al. discloses, in figure 5, a digital image processor (168) which has a program memory (172) that performs the printer processing for the color correction, tone scale correction, and pixel correction for the printer (col. 8, lines 45-49).

Regarding claim 18, Parulski et al. discloses in figure 5, a digital camera (col. 4, lines 38-42) which is used with printer module (176) which receives processed colors and predetermined printing characteristics (col. 8, lines 45-48); a camera interface (140); a CCD to capture images (col. 3, lines 38-41); a digital image processor (168) with program memory (172) for further processing the image by performing transceiver processing such as data compression and format conversion; printer processing such as interpolation, color and toner scale correction; and electronic darkroom processing (col. 7, line 55 - col. 8, line 2). These printer processes provide compensation for the printer processes of the printer. Figure 5 does not explicitly illustrate that the image pickup unit includes an image processor for initially processing the image. However, the image pickup unit of figure 2 does illustrate the use of a signal processing section (84) which may be added for performing the initial processing such as color separation, white balance, gamma correction, and color filter interpolation (col. 5, lines 57-68). It was not explicitly stated that the processor include a program memory however it would have been obvious to include a memory in order to perform the many operations of each processor. Therefore, it would have been obvious to one of ordinary skill in the art to include the processor of figure 2 into the image pickup unit of figure 5 to initially process the image. The printer interface of printer module (176) transmits processed images to the printer (col. 8, lines 45-49) but does not receive process color

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or printing process parameters from the printer. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used. Parulski et al. does not disclose receiving printing parameters which vary as a result of manufacturing and compensating for the manufacturing variations. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-51) wherein each printer has its own set of correction quantities (col. 12, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

Regarding claim 19, Parulski et al. does not disclose receiving printing parameters which vary as a result of manufacturing and compensating for the manufacturing variations. However, Ichikawa discloses a camera/printer system that transmits processed images to the printer and receives process color information (col. 7, lines 11-25) and printing process information (col. 7, lines 11-18). Ichikawa further discloses a control unit (13) communicated with the printer and receives attached information containing information about the type of printer (col. 9, lines 47-51)

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wherein each printer has its own set of correction quantities (col. 12, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Parulski et al. as taught by Ichikawa to provide selectivity in printers which may be used.

Regarding claim 20, Parulski et al. discloses, in figure 5, a digital image processor (168) which has a program memory (172) that performs the printer processing for the color correction, tone scale correction, and pixel correction for the printer (col. 8, lines 45-49).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. **Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6306 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

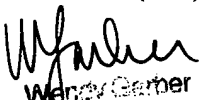
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitchell White whose telephone number is (703) 305-8155. The examiner can normally be reached on Monday-Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

MLW

March 12, 2000


Wendy Garber
Supervisor, Patent Examiner
Technology Center 2700